

REMARKS

The specification has been amended. Claims 33 - 42 remain pending in this application. No new matter has been added. In view of the above amendment and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

The Examiner has objected to the specification under 37 C.F.R. 1.75(d)(1) and MPEP § 608.01(o) as failing to provide proper antecedent basis for the claim term, "naturally occurring body orifice." In view of the above amendment to the specification, it is respectfully submitted that this objection should be withdrawn.

Support for the amendment to the specification may be found in U.S. Patent No. 5,868,760 which is incorporated by reference in the present application.

Claims 33-36 and 40 stand rejected under 35 U.S.C. § 103(a) as unpatentable over McGuckin, Jr. (U.S. Patent 5,868,760) in view of Murphy-Chutorian (U.S. Patent 5,891,133). Claim 37 stands rejected under 35 U.S.C. § 103 as unpatentable over McGuckin, Jr. in view of Murphy-Chutorian in further view of Osterholm (U.S. Patent 4,830,849). Claims 38-39 stand rejected under 35 U.S.C. § 103 as unpatentable over McGuckin, Jr. in view of Murphy-Chutorian in further view of Aida et al. (U.S. Patent 5,485,839). Claims 41 and 42 stand rejected under 35 U.S.C. § 103 as unpatentable over McGuckin, Jr. in view of Murphy-Chutorian in further view of Kreizman et al. (U.S. Patent 6,214,018).

Claim 33 recites a tissue resectioning system, comprising "a resection head mounted at a distal end of an elongate flexible body, *the resection head including a marker thereon* wherein, when in an operative position, the resection head is located within a body lumen with the elongate flexible body extending through the body lumen from a naturally occurring body orifice" and "*an imager which remains outside the patient's body, the imager generating image data of a selected region within the patient's body including a predetermined portion of tissue*

marked for resection" in combination with "an image processing unit analyzing the image data to define a region of tissue to be resected and to locate the marker" and "*a control unit controlling the resection head based on the defined region of tissue and the location of the marker to resect the region of tissue.*"

In contrast, McGuckin, Jr. describes an apparatus for endoluminally resecting tissue which consists of a tubular member 16 connected to an operating capsule 12 at a distal end, and an operator control module 14 at a proximal end. (See McGuckin, Jr., col. 11, lines 58-67). An endoscope 216, with a control segment 222 at a proximal end thereof, is passed through the tubular member 16 to an opening in the operating capsule 12. (Id. at col. 12, lines 9-20). The control segment 222 of the endoscope 216 includes an eyepiece 224, an input light source 226 and fiberoptics extending from the eyepiece 224 to a distal tip of the endoscope 216 in the operating capsule 12. (Id. at col. 12, lines 15-20). The fiberoptics provide a physician with an interior view of a path through the colon to a site where the tissue to be resected is located. (Id. at col. 12, lines 38-44).

Although McGuckin, Jr. states that the system is not limited to any particular type of diagnostic imaging guidance, no further description of guidance systems other than a vision system at the distal end of an endoscope is provided. (Id. at col. 3, lines 59-65). That is, the device of McGuckin, Jr. is controlled based only on the vision system at the distal tip extremity 218 of the endoscope 216. The vision system provides the physician with "a view ahead as...[the] endoscope 216 is advanced along the tortuous path defined by the colon." (Id. at col. 12, lines 39-43). Further, "the endoscope may have the viewing fiberoptics connected to a television camera...permitting the physician...to view the interior of the colon (as seen from tip extremity 218) on a high resolution television screen." (Id. at col. 12, lines 43-49). Even in this embodiment, the vision system still only presents the view of the interior of the colon. Furthermore, McGuckin, Jr. includes no showing or suggestion of any control of a resection head based on any imaging data besides manual control based on vision from the distal end of the endoscope. Thus, it is respectfully submitted that McGuckin, Jr. neither discloses nor suggests

"an imager which remains outside the patient's body," as recited in claim 33.

Furthermore, as the Examiner has noted, McGuckin, Jr. does not disclose or suggest the use of a resection head with a marker thereon. Without disclosing the marker, it follows that McGuckin, Jr. also neither shows nor suggests "an image processing unit analyzing the image data...to locate the marker" and "a control unit controlling the resection head based on...the location of the marker to resect the region of tissue," as recited in claim 33. The Examiner has attempted to cure the deficiencies of McGuckin, Jr. with the disclosure of Murphy-Chutorian. Murphy-Chutorian discloses a device for performing intra-coronary laser-assisted transmyocardial revascularization (ITMR). The ITMR device utilizes a laser delivery means 162 to create channels 210 from the epicardial to the endocardial portions of the heart, allowing blood to perfuse therethrough. (See Murphy-Chutorian, col. 12, lines 7-29).

Initially, it should be noted that the device described in Murphy-Chutorian does not perform resection of tissue. The laser delivery means 162 only creates channels in the myocardium, and, the reference includes no suggestion that the device could be used to resect tissue. Thus, a resection head at a distal end of an elongate flexible body is not disclosed or suggested. Furthermore, the device of Murphy-Chutorian is not introduced into the body via a naturally occurring body orifice. Rather the device is inserted into the femoral artery after a surgeon has gained access to such "using a standard needle to probe and find the femoral artery." (See Murphy-Chutorian, col. 10, lines 6-7). Also, the device of Murphy-Chutorian contains a visualization means located on the distal end of a catheter 140 that houses the laser delivery means 162. Thus, the visualization means is not an imager which remains outside of a patient's body. Thus, it is respectfully submitted that Murphy-Chutorian does not disclose or suggest a device for resecting tissue which is inserted into the body via a naturally occurring body orifice, or an imager which remains outside the body, as recited in claim 33 and clearly neither shows nor suggests "*a control unit controlling the resection head based on the defined region of tissue and the location of the marker to resect the region of tissue,*" where the region of tissue is defined based on imaging data obtained from a device outside the body.

Accordingly, for at least the reasons described above, the Applicant respectfully submits that neither McGuckin, Jr. nor Murphy-Chutorian, either alone or in combination, either shows or suggests a tissue resection system comprising: "a resection head located within a body lumen with an elongate flexible body extending through the body lumen from a naturally occurring body orifice" in combination with "an imager which remains outside the patient's body generating image data of a selected region within the patient's body including a predetermined portion of tissue marked for resection and an image processing unit analyzing the image data to define a region of tissue to be resected and to locate the marker" and "a control unit controlling the resection head based on the defined region of tissue and the location of the marker to resect the region of tissue," as recited in claim 33. Because claims 34-36 and 40 depend from, and, therefore include all of the limitations of claim 33, it is respectfully submitted that these claims are also allowable.

Applicant respectfully submits that Osterholm does not cure the above-described deficiencies of McGuckin, Jr. and Murphy-Chutorian. Thus, because claim 37 depends from, and, therefore includes all of the limitations of claim 33, it is respectfully submitted that this claim is also allowable.

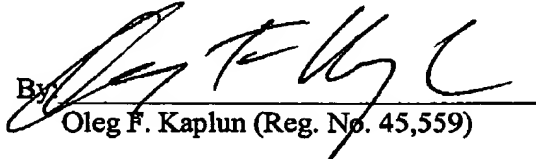
Applicant respectfully submits that Aida does not cure the above-described deficiencies of McGuckin, Jr. and Murphy-Chutorian. Thus, because claims 38 and 39 depend from, and, therefore include all of the limitations of claim 33, it is respectfully submitted that these claims are also allowable.

Applicant respectfully submits that Kreizman does not cure the above-described deficiencies of McGuckin, Jr. and Murphy-Chutorian. Thus, because claims 41 and 42 depend from, and, therefore include all of the limitations of claim 33, it is respectfully submitted that these claims are also allowable.

It is respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

Dated: May 31, 2005

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